

ARGUMENTS/REMARKS

Applicants would like to thank the examiner for the careful consideration given the present application, and for the personal interview conducted on November 19, 2003. The application has been carefully reviewed in light of the Office action and the interview, and amended as necessary to more clearly and particularly describe and claim the subject matter which applicants regard as the invention.

Claims 1-18 remain in this application. Claims 19-20 have been added to the application as a result of the interview. No new matter has been entered as a result of the additional claims.

Applicant and Examiner discussed the references used in the rejection. As a result of the interview, the Examiner has agreed to remove the finality of the rejections in the Office action of August 21, 2003, and applicant has agreed to provide this response listing the shortcomings of the references in detail, which is provided below.

Claims 1-4 and 7-10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Iwasaki (U.S. 4,463,341) in view of Fendt *et al.* (U.S. 6,477,457). For the following reasons, the rejection is respectfully traversed.

Claim 1 recites a "decoupler" for "decoupling a communication signal from an electrical power bus" wherein the communication signal contains "encoded load information". Claim 1 further recites a "data decoder" for decoding the encoded data to out put a "converter signal". Claim 13 recites similar elements at lines 21-37. New claim 19 recites "a data receiver" for "receiving an encoded communication signal from the electrical power bus, said encoded communication signal including encoded load information for controlling an operation of said power converter". The references do not suggest these claim limitations.

Iwasaki was cited for teaching the cited claim limitations. However, Iwasaki teaches a transmitter that merely adds an AC signal of a particular frequency to a DC power bus, and a receiver that merely detects the AC signal of that particular frequency, and uses that detection to turn a load on or off. However, there is no

suggestion that Iwasaki encodes any information in the signal, or subsequently decodes that information. In fact, the disclosure clearly does no encoding/decoding at all, because only a raw AC signal is added to the power bus. There is no modulation or other information multiplexed onto that AC signal. Hence, Iwasaki does not suggest the cited claim limitations.

At the personal interview, the Examiner agree that, after a cursory review, it appears that Iwasaki does not teach the cited claim limitations. Fendt does not overcome this shortcoming (nor was Fendt cited for such a teaching). Hence, claims 1, 13, and 19 are patentable over the combination of the references.

Claim 1 further recites a “power converter” which “converts an electrical power bus input of a first voltage into a power output at a second voltage for powering the loads”. Claim 13 recites a similar (but further limited) “power converter” at lines 38-48. New claim 19 recites that the converter converts the “bus voltage” into a “load voltage different from the bus voltage”. The cited references do not suggest these limitations of claims 1, 13 and 29.

Claim 1 recites that the power converter has the electrical power bus as an input, while claim 13 recites that the power converter is converting the bus voltage into a second voltage, and claim 29 recites that the converter converts the bus voltage. However, FIG. 2 clearly shows that the converter 9 of Fendt does not connect to the electrical power bus 5. Instead, the converter 9 of Fendt connects to the intermediate storage device 4, the charger 8, the ignition storage device 2, the switch 3, and inputs a control signal s2 from the control 10. Nowhere is it suggested that the converter 9 connects to the bus 5. In fact, Fendt specifically describes that the charger unit 8 *decouples* the bus 5 from the intermediate storage device 4 (and hence the converter 9—see col. 4, lines 60-61), and thus the bus 5 is clearly not input to the converter 9, and further the converter 9 never sees the bus voltage. Thus, Fendt does not teach the cited limitation of claims 1, 13, and 19.

Further, the operation of the Fendt device further supports the above conclusion that the charger 8 isolates the converter 9 from the power bus 5. Fendt teaches that first, the charger 8 is operated to charge the storage device 4 (which, schematically in FIG. 2 as a battery), during which the charger isolates the storage

device 4 from the bus 5 and thus drives the voltage to the battery 4 (and thus also to the converter 9) (see col. 4, line 58 to col. 5, line 5). The second mode is during discharge, where the battery 4 provides the energy to the converter, and hence it is the battery 4 which controls the voltage input to the converter 9, not the power bus 5. Hence, never is the input voltage of the converter 9 provided by the power bus 5, and hence Fendt does not teach a converter that "converts an electrical power bus input of a first voltage into a power output at a second voltage" as claimed.

Consequently, for this reason as well, claims 1, 13, and 19 are patentable over the references, even if the references are combined.

Finally, the Examiner has not provided the proper motivation for combining the references. The burden is on the Examiner to make a prima facie case of obviousness (MPEP §2142). To support a prima facie case of obviousness, the Examiner must show that there is some *suggestion* or *motivation* to modify the references (MPEP §2143.01). The mere fact that references *can* be combined or modified, alone, is not sufficient to establish prima facie obviousness (*Id.*). The prior art must also suggest the *desirability* of the combination (*Id.*). The fact that the claimed invention is within the capabilities of one of ordinary skill in the art is also not sufficient, by itself, to establish prima facie obviousness (*Id.*).

Accordingly, because the Examiner has failed to provide the proper motivation to combine the references, the rejection for obviousness is improper, and thus claim 1, 13, and 19 are patentable over the references for this reason as well.

Dependent claims 2-12, which depend on claim 1, directly or indirectly, are patentable for all of the same reasons as claim 1, and for the limitations contained therein. Claims 14-18, which depend on claim 13, directly or indirectly, are patentable for all of the same reasons as claim 13 and for the limitations contained therein. New claim 20, which depends on claim 19, is thus patentable for the same reasons discussed for claim 19.

In consideration of the foregoing analysis, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 32518 (LD11387).

Respectfully submitted,

PEARNE & GORDON, LLP

By: 

Robert F. Bodi, Reg. No. 48,540

1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108
(216) 579-1700

November 21, 2003